

In re: Appln No. 10/686,337
Amendment dated September 14, 2006
Reply to Office action of June 19, 2006

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (currently amended) ~~The~~ An enhanced nanocomposite according to claim 4, wherein the nanocomposite is comprised of alternating layers of nanocomposite doped with conductive additives, and nanocomposite doped with semiconductor ~~additives~~ additives, whereby the additives include additives selected from the group consisting of electrides and alkalides having an average particle size of from about 1 nanometer to about 1 micron.
7. (canceled)
8. (canceled)
9. (canceled)
10. (currently amended) ~~The quantum-energy transfer solution according to claim 7~~ enhanced nanocomposite according to claim 6, whereby the nanocomposite is further comprised of surface modified additives having a nanoscale layer. ~~surface modified nanoscale layer including surface modifications to functionalize for at least one purpose selected from the group promoting dispersion, enhancing corrosion resistance, enhancing chemical stability, enhancing molecular polarity, modifying hydrophobic or hydrophilic characteristics, enhancing solubility, providing stability against thermal and ultraviolet degradation, incorporating nucleating agents, enhancing means to make emulsions, and enhancing thermal or electrical conductivity.~~
11. (currently amended) ~~The colloidal solution according to claim 7 is further comprised of surfactant wherein the interfacial tension of the additives is reduced.~~ The enhanced nanocomposite according to claim 10, whereby the layer is functionalized for at least one purpose selected from the group consisting of providing stability against thermal and ultraviolet degradation, and enhancing thermal or electrical conductivity.

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12. (currently amended) ~~The colloidal solution according to claim 7~~ enhanced nanocomposite according to claim 6, whereby the nanocomposite is further comprised of quantum dots wherein the flow of electrons and phonons is further enhanced by effectively reducing the mean path length between said additives according to claim 11.
13. (currently amended) ~~The colloidal solution according to claim 7, wherein the colloidal solution~~ enhanced nanocomposite according to claim 6, whereby the nanocomposite is subjected to a phonon or electron bias as induced by externally generated fields, whereby the externally generated fields include including fields generated from the group consisting of ultrasonic, acoustic phonon, magnetic, electromagnetic, and electrical fields.
14. (currently amended) ~~The colloidal solution according to claim 7~~ enhanced nanocomposite according to claim 6, whereby the nanocomposite is further comprised of solvated electron solution having features including increased availability of free electrons.
15. (canceled)
16. (canceled)
17. (currently amended) Products are made from enhanced nanocomposite according to ~~claim 4~~ claim 6.
18. (currently amended) ~~The products~~ enhanced nanocomposite according to claim 17, whereby the products are further subjected to a phonon or an electron bias as induced by externally generated fields, whereby the externally generated fields include fields generated from the group consisting of ultrasonic, acoustic phonon, magnetic, electromagnetic, and electrical fields.
19. (currently amended) ~~The products~~ enhanced nanocomposite according to claim 17, wherein wherein said product is a phonon to electron or phonon to electron further selected from the group of energy conversion products product selected from the group consisting of thermionics, thermoelectric, photovoltaic, fuel cell, piezoelectrics, photoelectrics, ballistic tunneling, thermal diodes; and photon, electron, and photon emitters emitter.
20. (canceled)
21. (canceled)
22. (canceled)
23. (new) A colloidal solution comprised of electrides and alkalides having an average particle size of from about 1 nanometer to about 1 micron, and quantum dots.

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24. (new) The colloidal solution according to claim 23, whereby the colloidal solution is further comprised of surface modified additives having a nanoscale layer.
25. (new) The colloidal solution according to claim 23, whereby the layer is functionalized for at least one purpose selected from the group consisting of providing stability against thermal and ultraviolet degradation, and enhancing thermal or electrical conductivity.
26. (new) The colloidal solution according to claim 23, whereby the colloidal solution is subjected to a phonon or electron bias as induced by externally generated fields including fields generated from the group of ultrasonic, acoustic phonon, magnetic, electromagnetic, and electrical fields.
27. (new) The colloidal solution according to claim 23, whereby the colloidal solution is further comprised of a solvated electron solution having features including increased availability of free electrons.
28. (new) Products are made from colloidal solutions according to claim 23.
29. (new) The colloidal solution according to claim 28, whereby the products are further subjected to an electron bias as induced by externally generated fields, whereby the externally generated fields include fields generated from the group consisting of magnetic, electromagnetic, and electrical fields.
30. (new) An enhanced heat transfer fluid comprised of a colloidal solution including electrides and alkalides having an average particle size of from about 1 nanometer to about 1 micron.
31. (new) The enhanced heat transfer fluid according to claim 30, whereby the colloidal solution is a solvated electron solution having means to increase the availability of free electrons.
32. (new) Products are made from enhanced heat transfer fluid according to claim 30, whereby the products are further comprised of alternating layers of nanocomposite doped with conductive additives, and nanocomposite doped with semiconductor additives.
33. (new) Products are made from enhanced heat transfer fluid according to claim 30, whereby the heat transfer fluid is subjected to a phonon or electron bias as induced by externally generated fields, whereby the externally generated fields include fields generated from the group of ultrasonic, acoustic phonon, magnetic, electromagnetic, and electrical fields.
34. (new) The enhanced heat transfer fluid according to claim 30, whereby the colloidal solution is further comprised of fluid additives.